

# Artificial Intelligence for Socio- economics Development Summit &

*Unveiling of the 1<sup>st</sup> Artificial Intelligence  
book for Nigerian primary and secondary  
schools*

**Tuesday 19 November, 2019  
8am-1pm**

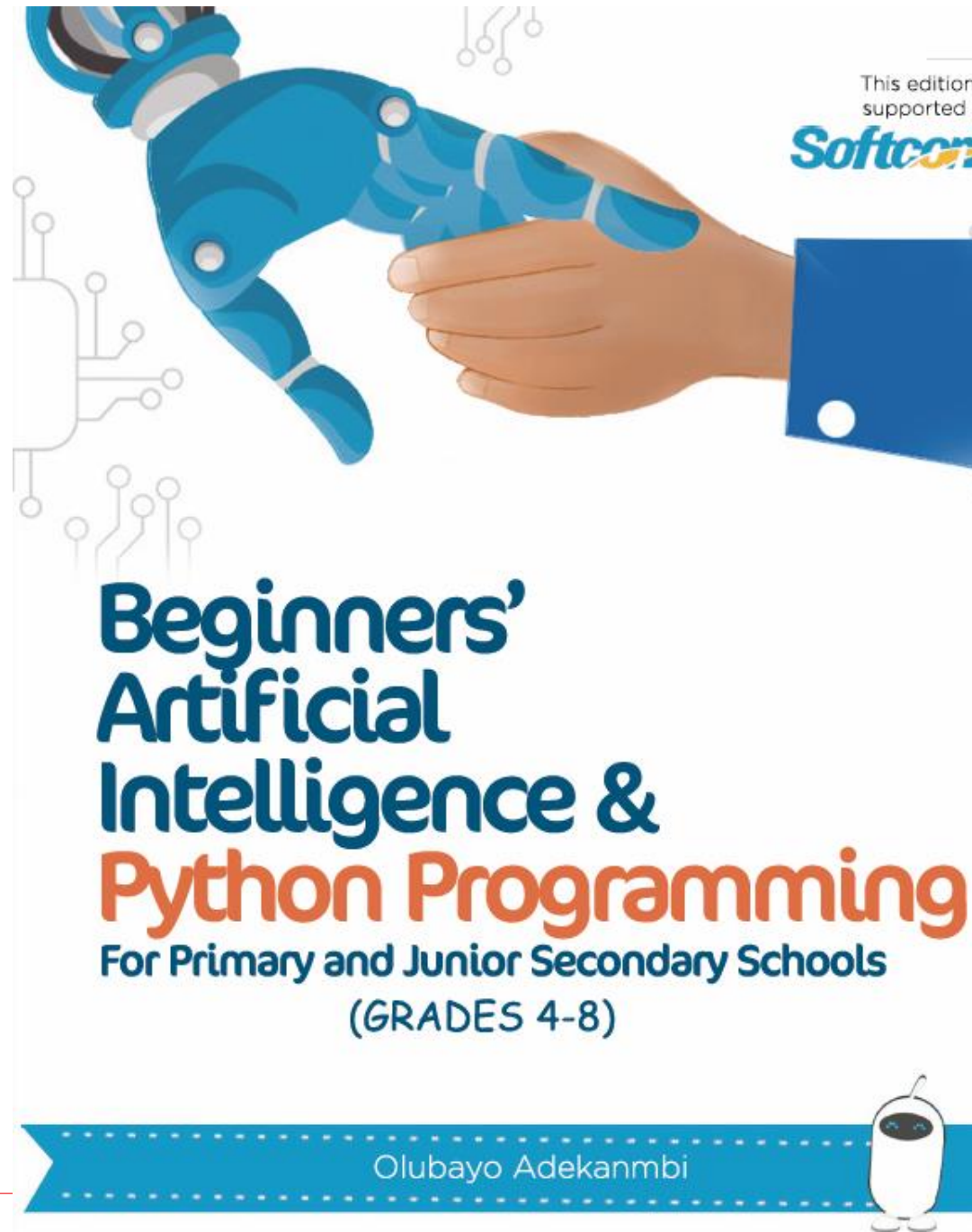
**The Oriental Hotel,  
Victoria Island, Lagos**



# Event Agenda



- › 8:00-8:30 Welcome Speech by the Convener, **Bayo Adekanmbi**
- › 8:30–8:50 Keynote 1: Artificial Intelligence for Development – **Prof Thomas Dietterich**
- › 8:50-9:30 Special Address : **Vice President/ Minister of Communications and Digital Economy/ Lagos State Innovation Office/ Softcom**
- › 9:30 -9:45 Artificial Intelligence and Healthcare Delivery : **Dr Stephen Odaibo, CEO Retina-AI, USA**
- › 9:45-10:00 Interlude/Prize winning break
- › 10:00- 10:20 Data-driven Business : Databeaver case study **Tomi Amao Chief Technology Officer, Softcom**
- › 10:20-10:50 Panel Discussion – How AI drives socio-economic development
  - **Katherine Siminyu, Regional Coordinator, AI4D, African Network (Moderator)**
  - **Dr Eric Sodomka, Facebook Research (Panel Discussant)**
  - **Victor Ohuruogu, UNESCO Data for Development Program Manager (Panel Discussant)**
  - **Dr Bola Oladejo, University of Ibadan**
  - **Ayodeji Balogun, Terragon Group**
  - **Tomi Amao, Softcom**
- › 10:50-11:10 Cognitive AI Solutions Use case in Education: **Lawrence Muthonga, Microsoft Africa**
- › 11:10-11:15 Geospatial Artificial Intelligence with GRID3 – **Wole Ademola Adewole**
- › 11:20 -12:00 Artificial Intelligence for Good – Debate by Top schools in Lagos
- › 12:00- 12:30 Unveiling the Book – Introduction to Artificial Intelligence and Hands-on Python for Grades 5-9
- › 12:30 Closing Remark and Refreshment





## **Let's play Artificial Intelligence Game**

Can we use our mental AI to predict voices of these individuals?

# Question 1



# Martin Luther King Jr

## Question 2



# Mrs Ibukun Awosika



## Question 3



# Richard Quest

## Question 4



# Prof Wole Soyinka

## Question 5



# Prof Yemi Osinbajo SAN

## Question 6



# Chimamanda Ngozi Adichie



## Question 7

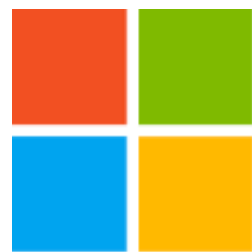


# Arsene Wenger

## Question 8



# Aliko Dangote



Microsoft



terragon



Lagos State  
Office of Innovation  
& Technology



AXA MANSARD

proshare

MainOne



carbon



techcabal



## Debate Topics

# Schools participating in the Artificial Intelligence Debate



Grange School



Loveworld School



Julliard Academy



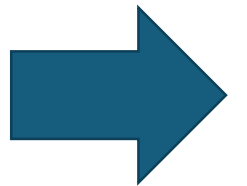
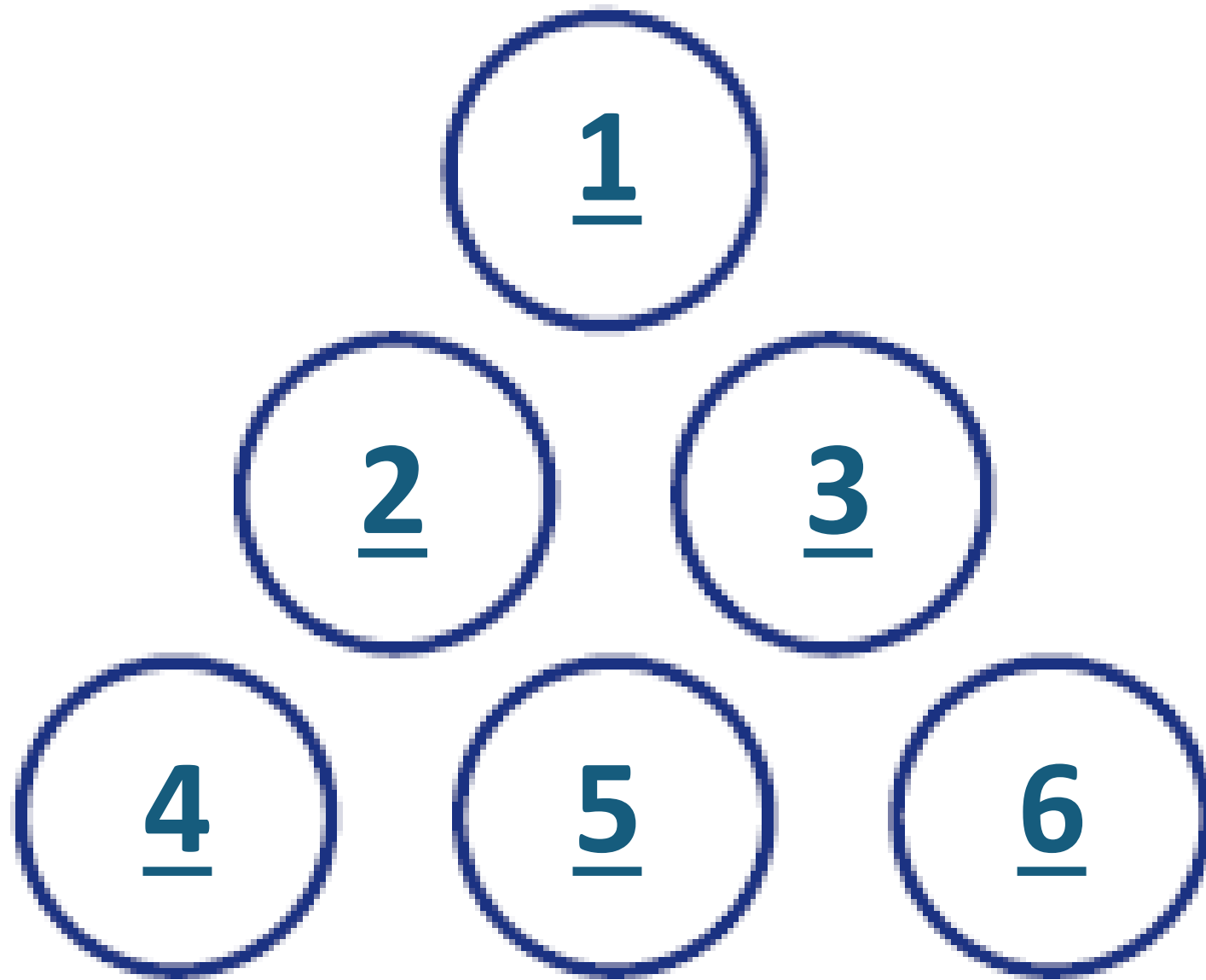
Chrisland School  
Opebi



Park British School



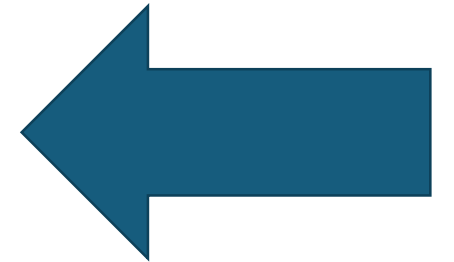
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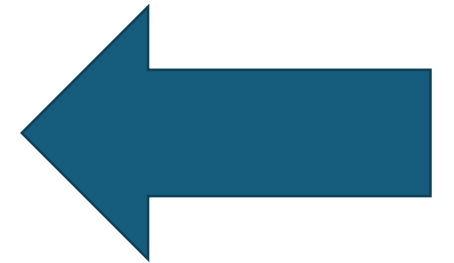
# 1

**Will I ever ride a self  
driving car?**



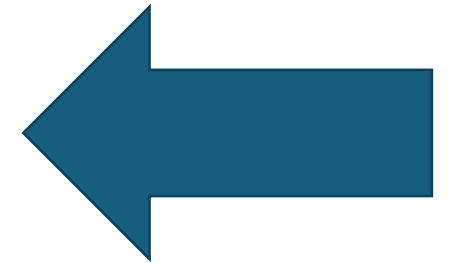
# 2

**When machines get  
smarter than man**



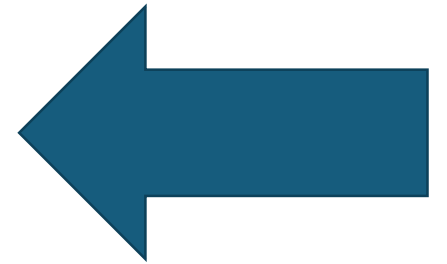
# 3

**How will Artificial  
Intelligence help Nigeria  
economy?**



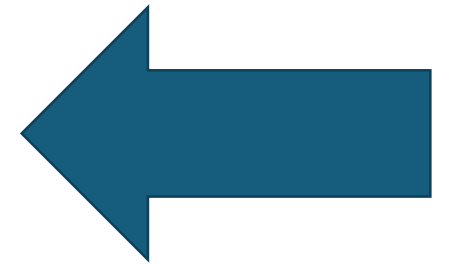
# 4

**Artificial Intelligence will  
take our jobs**



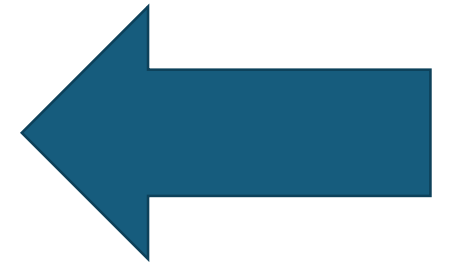
# 5

## How Artificial Intelligence will change medical practice



# 6

**How can farmers use  
Artificial Intelligence?**



 To Vote

**[bit.ly/ainaija](https://bit.ly/ainaija)**

# Event Compere: Gbemileke “Oscar” Oyinsan

- › Gbemileke “Oscar” Oyinsan (born April 2, 1984) is a Nigerian media personality from Akure in Ondo State, Nigeria. Popularly known and referred to as Oscar In The City, he is an ex radio broadcaster who previously worked in notable Radio stations in Nigeria, a graduate of Chemical Engineering and is currently the MD/CEO of Amber 11 Media.[1]
- › Oscar is also the Quiz Master and Host of Nigerian syndicate Mathematics TV Quiz Competition for Secondary School students called Cowbellpedia
- › Oscar started his broadcasting career while in his 2nd year as an undergraduate at the University of Lagos studying Chemical Engineering; he began working for the School's owned radio station - UNILAG FM and also at The BBC World Service Trust where he was the pioneer male presenter for the youth radio show, FLAVA which aired across the Nation.[3]
- › Upon his graduation in 2008, Oscar joined BBC World service in Abuja as a producer and shortly returned to Lagos to join Inspiration FM where he co-hosted a show with Titi called the Midday Café with Oscar and Titi.[4]
- › Before joining Inspiration FM, Oscar worked with comedian, Tee A as a Red carpet Host for his e-news program, Showtime Africa. In 2013, he moved to City FM as an OAP and Head of Programmes





# #1stAIBook

# #AI4Summit

# Prof. Thomas G. Dietterich

Distinguished Professor (Emeritus) and Director of Intelligent Systems  
Founder and Chief Scientist, BigML, USA

THOMAS G. DIETTERICH is one of the top global experts in Machine Learning, focusing his research effort on safe artificial intelligence including open category supervised learning, safe reinforcement learning, explainable artificial intelligence and Computational Sustainability:

He is part of the Project TAHMO – an intervention in Africa to deploy, clean and analyse sensor network data with a strategic intent to construct and deploy a network of 20,000 hydro-meteorological stations in Africa.

He is a Distinguished Professor of computer science at Oregon State University. He is one of the founders of the field of Machine Learning. Among his research contributions was the application of error-correcting output coding to multiclass classification, the formalization of the multiple-instance problem, the MAXQ framework for hierarchical reinforcement learning, and the development of methods for integrating non-parametric regression trees into probabilistic graphical models (including conditional random fields and latent variable models).

Dietterich served as Executive Editor of Machine Learning (1992-98) and helped co-found the Journal of Machine Learning Research. He is currently the editor of the MIT Press series on Adaptive Computation and Machine Learning. He also served as co-editor of the Morgan-Claypool Synthesis Series on Artificial Intelligence and Machine Learning. He has organized several conferences and workshops including serving as Technical Program Co-Chair of the National Conference on Artificial Intelligence (AAAI-90), Technical Program Chair of the Neural Information Processing Systems (NIPS-2000) and General Chair of NIPS-2001. He is a Fellow of the ACM, AAAI, and AAAS. He served as founding President of the International Machine Learning Society, and he is currently a member of the Steering Committee of the Asian Conference on Machine Learning.



# Tomi Amao

Chief Technology Officer at Softcom Nigeria

Tomi Amao joined Softcom from computer networking company Cisco Systems, where he worked as a Senior Cybersecurity Systems Engineer. Prior to that, he worked in the same role at Fortinet, a pure play cybersecurity company, responsible for the technical success of its West African business.

As CIO at Softcom, he is in charge of managing the innovation process within the organization, identifying business opportunities and supporting best practices. Tomi holds a B.Eng. in Electrical and Electronics Engineering, and is currently studying Computer Science at Stanford University. He holds many industry certifications, including being a Cisco Certified Internetwork Expert for over the past ten years.



# Ayodeji Balogun

Chief Technology Officer, Terragon Group

Deji Balogun is the Chief Technology Officer of Terragon Group is a self-taught programmer who has a wealth of product development experience, and vast competence in various web and mobile technologies. With over a decade of programming experience, he has worked on a myriad of projects, and has led critical initiatives and development of proprietary platforms across all aspects of Terragon Group business.

He was a pioneering engineer at Jobberman.com – Nigeria's foremost jobs directory, where he helped create the platform on which the portal runs today.

Ayo graduated from Obafemi Awolowo University, where he studies Electrical Electronics Engineering



# Margaryta Ostapchuk

Technical Evangelist, Commercial Software Engineering team, Microsoft Canada



- › Margaryta is a Senior Software Engineer at Microsoft, Commercial Software Engineering team. Her role involves working with customers, partners and developers to find solutions to their most challenging issues.
- › Margaryta's technical focus areas include emerging technologies such as: natural language understanding, cognitive services, integrated bot development, artificial intelligence, search and data processing. She has worked with worldwide corporations and numerous startups helping them design and build intelligent ways of engaging with their customers.



# Dr. Eric Sodomka

## Research Scientist, Facebook Research

- › He is a Research scientist at Facebook Core Data Science since 2013. He is broadly interested in mechanism design, game theory, optimization and machine learning.
- › Prior to Facebook, he received his PhD in computer science from Brown University, where he wrote his dissertation on prediction and optimization abstractions in complex markets. Before that, he received BS in computer science from the University of Minnesota, where he studied autonomous trading agents and sequential decision making.
- › His recent work are focused on answering three questions:
  - » *How can we design auctions that are effective in practice?* Our ad auction system is continually evolving as our product changes and as we better understand the preferences of advertisers and users. How can we allocate and price ads in a way that approximately achieves desirable properties (e.g., incentive compatibility, maximizing social welfare) while easily adapting to future product changes? And what features are important to these real-world problems but aren't often addressed by theoreticians?
  - » *How can we handle mechanism failures?* When things go wrong—that is, when there is an error in the mechanism's implementation, or when the mechanism's rules have unforeseen consequences—how can we effectively detect, identify and fix these problems?
  - » *How can we predict counterfactual outcomes in real-world markets?* Before we change the mechanism, we want to first know the effects of changing it, but estimating those effects is challenging because of market dynamics—an A/B test, for instance, may fail to capture participant responses that occur only over longer horizons or after the change is fully rolled out. How can we predict counterfactuals in such situations? Are there approaches that work well for particular types of mechanism changes?





# Nicholas Litombe PhD

Co-Founder, Alliance4AI Africa



- Dr Nicholas Litombe is a Visiting Scholar at Harvard's Institute of Applied Computational Science and the Department of Physics.
- He is also co-founder of Alliance4Ai, an organization empowering Africans for the future of work.
- He has worked as a Senior Data Scientist at a Manhattan-based startup empowering companies to make smarter decisions by providing an accurate understanding of human movement in the real world.
- Previously, he served as a Science and Technology Policy Fellow at the Department of Energy's Advanced Manufacturing Office in Washington D.C. In this role, he managed a \$12 Million portfolio focused on cleantech energy and innovation.
- He has a bachelor's degree from Columbia University and a Ph.D. from Harvard University, in Physics, where he also graduated from the Harvard Innovation Lab. His other interests include STEM education in developing countries and underserved communities. He's passionate about building grassroots communities to leverage Artificial Intelligence and Machine Learning to provide African solutions to African problems.



# Katherine Siminyu

## Regional Coordinator, Artificial Intelligence for Development – Africa Network



- › Kathleen Siminyu is a data scientist & machine learning engineer. She is the Regional Coordinator for the Artificial Intelligence for Development – Africa Network. She is Co-Founder of the Nairobi Women in Machine Learning & Data Science community, and part of the Deep Learning Indaba Steering Committee. Her other interests include natural language processing for African languages and low-cost hardware robotics.
- › Kathleen is a data scientist and machine learning engineer who attributes her achievements to a commitment to continual self-learning and improvement. She previously served as the Head of Data Science at Africa's Talking, Co-Founder and Co-Organiser of the Nairobi Women in Machine Learning and Data Science community as well as part of the Deep Learning Indaba Steering Committee.
- › With a background in Mathematics and Computer Science and having set up the data department at a startup, she has hands on experience with a wide range of data-related tasks including data scraping, munging, cleaning, analytics and visualization, using Data Science to uncover insights, deploying ML models as well as building a distributed data infrastructure using Scala, Kafka, Spark, HDFS and HBase.
- › Kathleen is keen on investing time and effort in ventures that involve natural language processing for African languages as well as low-cost hardware robotics.





# Sabrina Smai

Software Engineer in the Commercial Software Engineer (CSE) team

- › Sabrina is a serial tech entrepreneur and multi-hyphenate born and raised in Montreal, QC. She has started over 8 technology ventures, one of which Placed at Princeton University's Annual Hackathon 2016. Sabrina is also the Founder of E-Terview, a seamless application for evaluating video interviews using Artificial Intelligence and predictive technology.
- › In addition, Sabrina is part of the Commercial Software Engineering Team at Microsoft, where she works with Fortune 500 companies to solve their most complex Machine Learning + Artificial Intelligence business problems.



# Dr. Stephen G. Odaibo, CEO Retina.ai, USA



- Dr. Stephen G. Odaibo is Founder, CEO, and Chief Software Architect of RETINA-AI, a company that uses Artificial Intelligence to improve Healthcare. He is a Retina specialist, Mathematician, Computer Scientist, and Full-Stack AI Engineer. Dr. Odaibo is the only Ophthalmologist in the world with advanced degrees in both Mathematics and Computer Science.
- In 2017 UAB College of Arts and Sciences awarded Dr. Odaibo its highest honor, the Distinguished Alumni Achievement Award. In 2005 he won the Barrie Hurwitz Award for Excellence in Clinical Neurology at Duke Univ. School of Medicine where he topped the class in Neurology and Paediatrics. In 2016 Dr. Odaibo delivered the Opening Keynote address at the Global Ophthalmologists Meeting in Osaka Japan. And he delivered the inaugural Special Guest Lecture in Ophthalmology at the University of Ilorin, Nigeria. In 2018 Dr. Odaibo delivered the keynote address at the National Medical Association's New Innovations in Ophthalmology Session. He is author of the book "Quantum Mechanics and the MRI Machine" (2012), and of the book "The Form of Finite Groups: A Course on Finite Group Theory" (2016).
- Dr. Odaibo is an alumnus of the Math Fast-Track program at UAB. He obtained his B.S. in Math from UAB in 2001, his M.S. in Math from UAB in 2002, his M.S. in Computer Science from Duke in 2009, and his Doctor of Medicine—MD from Duke in 2010. From 2004 to 2006, Dr. Odaibo was in the lab studying G-protein-coupled receptors with Dr. Robert J. Lefkowitz, the 2012 Nobel Laureate in Chemistry. Dr. Odaibo completed his Internship in Internal Medicine at Duke Univ. Hospital in 2011, his Residency in Ophthalmology at Howard Univ. Hospital in 2014, and his Fellowship in Medical Retina at the Univ. of Michigan—Ann Arbor in 2015.
- In Oct 2011 Dr. Odaibo's cornea paper was chosen by MIT Technology Review as one of the best papers from Physics or Computer science submitted to the arXiv. In that paper, he provided the first quantitative demonstration of non-paraxial light bending in the human cornea
- In clinical practice, Dr. Odaibo focused on caring for patients with macular degeneration, diabetic retinopathy, retinal vascular occlusions, retinal tears, and localized retinal detachments. He is a Fellow of the American Academy of Ophthalmology and a Fellow of the American Society of Retina Specialists. From 2015 into 2018 Dr. Odaibo was in retina practice at the Medical Associates Clinic in Dubuque Iowa. Of the many awards Dr. Odaibo has won in his life, one of the most meaningful for him were the tears shed by many of his patients and their families at the news that he was leaving his retina practice in Dubuque to focus more on Research & Development.
- Technically, Dr. Odaibo is a Full-Stack AI engineer and has programing experience with mobile apps, network communication, server-side development and management, and training of machine learning algorithms. His programming languages and platforms repertoire includes C, C++, JAVA, Python, MATLAB, Keras, Tensorflow, Swift, and CUDA-GPU to name a few. Dr. Odaibo single-handedly developed the world's first mobile artificial intelligence app for eye care providers.



# Victor Ohuruogu

Program Manager

United Nations Foundation Global Partnership on Sustainable Development Data



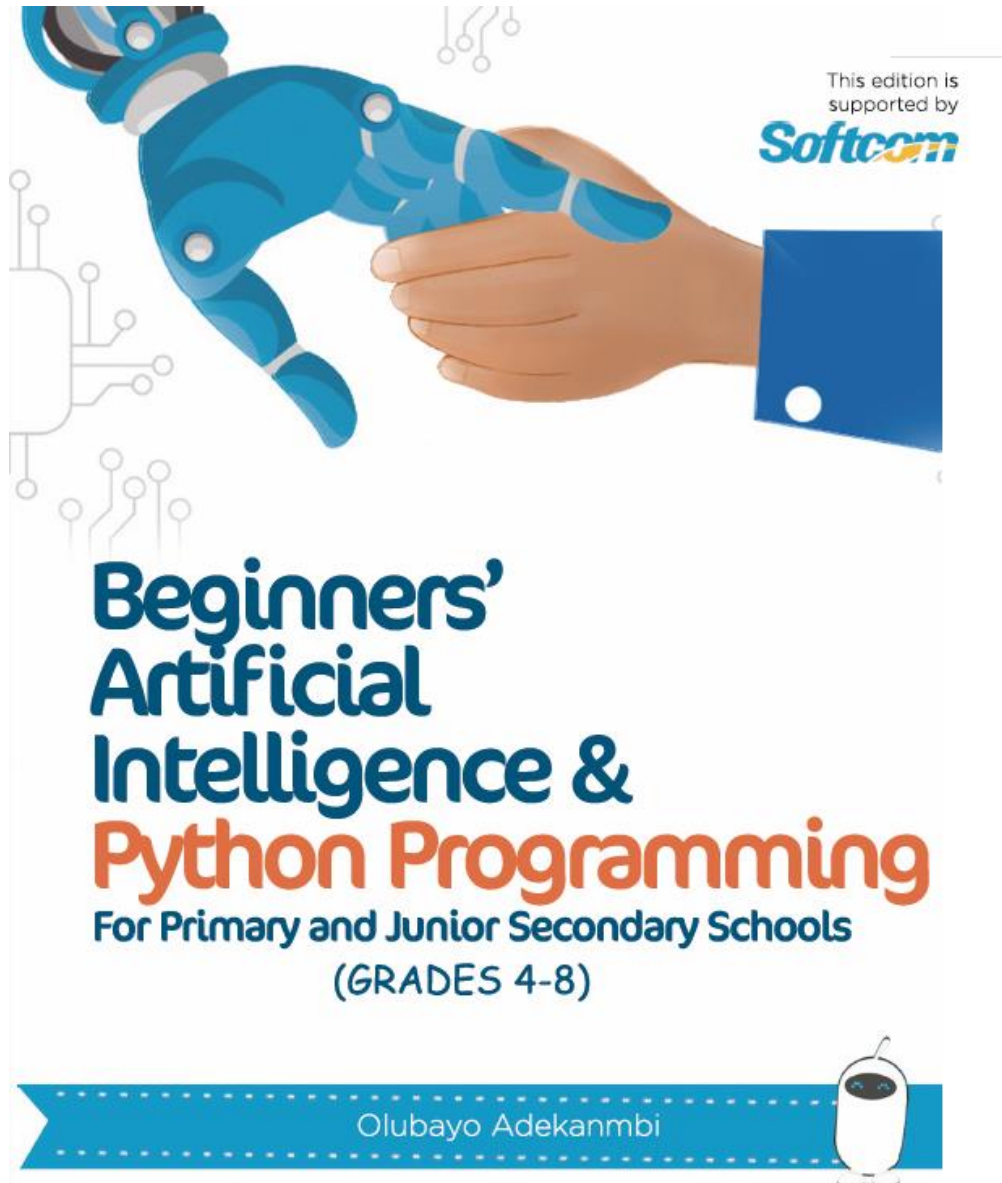
- › Victor Ohuruogu is a Program Manager with the Global Partnership for Sustainable Development Data (GPSDD) at the United Nations Foundation, where he is responsible for coordinating partnership activities with government, civil society, private sector, academia and donors around data for Sustainable development. He currently supports GPSDD's partners and stakeholders across West Africa.
- › Victor has a background in public health, nutrition, telecommunications and in development program management. Among many interests, he is keen on leveraging data and technology innovations, including mobile product development and deployment for the social sector and also looks at how open, and big data and other non-traditional sources of data can be leveraged for the SDGs.
- › He has previously worked with MTN and GSMA



# Announcements

# How to access the book and our learning community

**[bit.ly/aiondemand](https://bit.ly/aiondemand)**



# 100 books will go for FREE